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ABSTRACT

Based on primary research relating to the theoretical framework of alternative schools, this study investigated teachers' and students' perceptions of instructional practices in alternative and conventional public schools to determine if differences in actual teaching practices do occur between the two types of schooling. Ten high schools participating in the study represented districts possessing nationally recognized alternative schools and their conventional counterparts. Data were collected from 596 students in alternative schools and 809 students in conventional schools and from 76 participating teachers. The instruments used to gather the data were inventories of teacher functions containing a variety of traditional and non-traditional teaching functions. The determination of cross-group correlation coefficients and a factor analysis yielded findings that indicated the existence of significant instructional differences between sample groups. For example, both students and teachers agree that alternative school teachers are more likely to (1) assist individual students in dealing with personal concerns; (2) provide out-of-school experiences; (3) encourage students to express their feelings; (4) write evaluation of students' work; and (5) have students sign learning contracts. (Author/MLF)

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# ALTERNATIVE SCHOOLS:
# WHAT'S REALLY HAPPENING IN THE CLASSROOMS

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Presented at the American Educational
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Alternative Schools: What's Really Happening in the Classrooms

The past decade has been characterized by the emergence of alternative schools as a major trend in public education. The International Consortium for Options in Public Education estimates that over 15,000 public school alternatives were in operation in 1978. This number has undergone dramatic growth during the past three years as the concept of alternative education has become increasingly popular. Over 28 percent of the school districts in this country are currently operating alternative programs and schools. In metropolitan districts of 25,000 or more students, the figure reaches 66 percent. The states of California and Virginia have enacted legislation which mandates the establishment of alternatives within the realm of continuation programs for learners with interrupted sequences in their education.

A number of other developments have demonstrated the growing acceptance of the idea. The North Central Association of Schools and Colleges (1974), the major accreditation agency in the midwest, has adopted special standard procedures for the accreditation of alternative schools. The document's introduction states:

> While the standard school certainly will continue to be the major institution in American education, it will not be the exclusive one. Other types of schools will develop, seeking to provide more fully for the total educational needs of the community. Widespread educational options--the coexistence of many types of alternative schools and programs--should strengthen American education as a whole (p. 1).

The last ten years have produced over 250 books and articles and over 70 dissertations on the topic of alternative education and alternative schools. Mario Fantini, the Dean of the University of Massachusett's School of Education, has characterized the alternative schools' movement as the only major movement in American education today.

A basic rational supporting the rapid growth of alternative schools is twofold. First, it has been increasingly accepted that people are capable of and do learn through a variety of means. (Messick 1966, Thelen 1967, Wright 1971, Noar 1972, Witkin and Moore 1974, Martens 1975, Ashburn 1976, Goldberg 1977, Speer 1979, Fischer 1979, Dunn 1979). Second, there are a number of distinctively different styles of teaching which are commonly employed in public schools. (Withall 1952, Smith and Meux 1967, Foshay 1975, Kendall and Solomon 1975, Joyce 1975, Raywid 1977, Fischer 1979, Dunn 1979.)

This research involving teaching and learning style has suggested the existence of individual differences regarding personal styles. The acknowledgement of this disparity has become an integral factor in the development of a theoretical base upon which the alternative schools movement has purportedly been founded.

However, a closer look at actual instructional environments within alternative schools may indicate otherwise. Barr spoke to this possibility in a paper he presented at the 1977 Magnet School Conference in New Orleans. He pointed out:

> To many alternative schools have been developed with almost total disregard to learning and teaching styles. Many alternative schools utilize the typical teacher-classroom strategies found in most schools today. Though classes are smaller and there appears to be a more humane atmosphere and closer teacher-student relations, the instructional strategies are far from creative. In a surprising number of alternative schools, teachers are still selecting content, making the primary classroom decisions and still attempting to motivate students to "become involved" in completing teacher assignments, and still dominating classroom interaction. . . . This is not to say that the typical teacher-centered classroom approach to learning is ineffective or bad, but it does violate on the the strongest rationales that have been developed for alternatives--that different people learn in different ways. If this assumption is true, alternative schools may do well to develop their programs more closely around alternative instructional approaches.

Barr proposes that alternative instructional approaches assume a more influential role in the teaching styles of alternative school educators. This suggestion stems from the premise that differences do or should exist between conventional and alternative instructional styles.

Barr represents one of several authorities who question whether or not actual instructional practices in alternative schools reflect this major theoretical assumption regarding individual differences. The following questions have been raised:

Do the actual instructional practices of alternative school teachers differ from one another and from their conventional counterparts?

Have alternative schools been successful in developing learning environments that differ distinctly from conventional schools?

Some would argue that the teachers and their learning environments are very similar in both alternative and conventional schooling. This notion is based on the fact that the vast majority of teachers have received their training through traditional teacher training institutions. Further, the ability of teachers to transform their own personal style from a conventional to an alternative setting is in doubt.

The primary focus of this study was to investigate teachers' and students' perceptions of instructional practices in alternative and conventional public schools to determine if differences in actual teaching practices do occur between the two types of schooling.

## METHOD

Given the conflicting claims, lack of systematic research, and the growing tendency of alternative schools to become the current "fad" of public education, these schools are subject to considerable confusion. Alternative schools have been developed and implemented at such a rapid rate that no comprehensive system of classification has been devised. The result has been hundreds of titles, names and types of alternative schools composing a conglomeration which defies any type of categorical classification. School districts now label all kinds of programs as alternatives. "Alternative" has often become synonymous with "new" in many educators' vocabularies without regard for program substance. The critics and supporters of alternative schools rarely espouse similar notions of what is or is not an alternative school. This confusion has brought into focus the immediate need for a concise definition of alternative schools.

The initial methodological task of this study was to develop a comprehensive, working definition which would accurately depict alternative public schools. The following definition reflects a synthesis of available research and school evaluations, as well as the perspectives of the recognized authorities. No one to date had attempted such a comprehensive synthesis, partially due to the embryonic nature of the field. The following criteria represent an accumulation of the most recent and accurate definitional data available on alternative schools. Any school or program professing to be an alternative should be characterized by each of the six ensuing criteria. Due to the diversity of programs, one characteristic may be more significant than another but nonetheless, all six need to be present.

1. Choice of Participation - Involvement in the program should be by choice. This includes students and instructional or administrative personnel.
2. Program Distinctiveness - The program should offer a unique format with regard to the type of curriculum, instruction, resources, or any combination of these it provides to it participants. It has an identity.
3. Comprehensive Set of Operational and Learning Objectives - The program should clearly outline what its students will achieve and the means by which they will accomplish the objectives.
4. Shared Decision Making - The program should provide the opportunity for all participants to be involved in operational and instructional decision making.
5. Common Curricular Characteristics -
    a. Affective Development - The program should provide for personal, emotional, and academic development.
    b. Individualized Learning - The program should emphasize and provide for individual needs on both cognitive and affective levels.

c. Out of School Experiences - The program should provide opportunities for its students to participate in learning experiences beyond those offered at the school.

6. Comprehensive Evaluation - The program should submit itself to rigorous internal and external evaluation as well as continuous self-examination of instructional and operational procedures and outcomes.

For the purposes of this study, any school or program characterized by these six criteria represents an alternative school. The scope of this definition is broad in nature to best accomodate the diverse population of alternative schools.

The procedural design of this investigation of alternative public schools presented a number of procedural problems. The relative infancy of the concept provides difficulty in the location and identification of suitable field sites. The number of operating alternative schools is drastically lower than their conventional counterparts which causes additional complications in data collection due to the distance between potential field sites. An additional problem in working in with alternative schools is the small number of staff and students available for sampling as compared to conventional schools. Despite these concerns the field sites utilized were selected based on the alternative school's ability to meet a number of definitional and operational criteria. The conventional schools were selected by the participating district's research office once it had been determined that the alternative school was in compliance with the criteria. A total of five school districts were selected by the researcher as participants for the following reasons:

Each of the schools' districts:

1. Had existing alternative schools that were characterized by the definitional criteria of the study.
2. Demonstrated interest in participation.
3. Represented five different states.
4. Reflected the economic and geographic constraints of the researcher.

The selection of alternative schools involved an analysis by the researcher of the school's ability to meet six criteria. These criteria stated that:

1. Each program must satisfy each of the six definitional criteria for identification as an alternative school.
   a. Choice of participation
   b. Distinction in approach.
   c. Comprehensive set of operational and learning objectives.
   d. Democratic opportunities for decision making.
   e. Common curricular characteristics.
      (1) Affective development
      (2) Individualized learning
      (3) Out of school experiences
   f. Comprehensive evaluation.

2. Each program must have been in operation for a minimum of five years.
3. Each program must receive the majority of its funding and financial support from its district's local revenue or have an apparent plan for incorporating the school within the existing budget of the school corporation.
4. Each program must have a specific programmatic emphasis when compared with the other participating alternative schools in this study.
5. Each program must be nationally recognized as an alternative school at the secondary level by external sources, including professional literature or statements by recognized authorities in the field.
6. Each program must be in a major metropolitan area with a population of 1,000,000 or more inhabitants.

The selection of the conventional schools occurred after the alternative school was identified. Two criteria were established and presented to the research office in each district for consideration in the selection of a participating conventional school. They are:

1. Each school must be within the same attendance area as the alternative school and must service a representative population of students in regard to age and grade level.
2. Each program must be identified as one of the conventional programs available to all students in the district.

The ten schools which participated in this study are characterized in the following table.

DISTRICT DATA AND SCHOOL DATA OF PARTICIPANTS

| | District Data | | | | |
|---|---|---|---|---|---|
| | I | II | III | IV | V |
| Metropolitan Population | 1,800,000 | 5,000,000 | 3,000,000 | 1,500,000 | 1,000,000 |
| Enrollment | 21,547 | 511,878 | 706,998 | 13,150 | 37,000 |
| No. of H.S. | 3 | 64 | 27 | 1 | 7 |
| No. of Alt. S. | 1 | 106 | 9 | 1 | 1 |
| Ethnic Data | | | | | |
| Caucasian | 75% | 20% | 30% | 82% | 83% |
| Black | 7% | 50% | 45% | 17% | 14% |
| Hispanic | 15% | 17% | 24% | -- | 1% |
| Other | 3% | 3% | 1% | 1% | 2% |

| | School Data | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J |
| Enrollment | 2200 | 193 | 1310 | 342 | 1640 | 569 | 3450 | 360 | 1050 | 430 |
| Certified Teachers | 88 | 8 | 80 | 24 | 82 | 34 | 180 | 15 | 49 | 19 |
| Teachers Sampled | 9 | 7 | 8 | 11 | 6 | 7 | 5 | 5 | 10 | 9 |
| Ethnic Data | | | | | | | | | | |
| Caucasian | 85% | 86% | 4% | 42% | Included in other | 69% | 82% | 92% | 77% | 90% |
| Black | 7% | 2.5% | 43% | 47% | 47% | 29% | 17% | 8% | 1% | 7% |
| Hispanic | 4% | 8% | 51% | 11% | 18% | 10% | -- | -- | 19% | 1% |
| Other | 4% | 3.5% | 2% | 1% | 35% | 1% | 1% | -- | 3% | 2% |
| Daily Attendance | 90% | 75% | 79% | 92% | 90% | 94% | 96% | 96% | 91% | 85% |
| Length of Operation | 60 yrs. | 6 yrs. | 66 yrs. | 9 yrs. | 14 yrs. | 3 yrs. | 21 yrs. | 5 yrs. | 60 yrs. | 8 yrs. |
| Student Selection | Residency | Residency Application | Residency | Residency Application | Residency | Residency Audition | Residency | Residency Application | Residency | Residency Application |
| Average Class Size | 26.5 | 12 | 25 | 15 | 26.3 | 26.5 | 26 | 20 | 29 | 15 |
| Pupil/ Prof. Staff | 1/25 | 1/14 | 1/22 | 1/15 | 1/18 | 1/15 | 1/19 | 1/24 | 1/21 | 1/22 |
| Per Pupil Cost | 1180 | 1180 | 1127 | 1127+ | 833 | 1111 | 1200 | 1200 | 1100 | 1540 |
| Building Age | 27 yrs. | 50 yrs. | 66 yrs. | 15 yrs. | 14 yrs. | "old" | 15 yrs. | 15 yrs. | 3 yrs. | 50 yrs. |
| Advisory Board | Yes Monthly | Yes Monthly | Yes Occasional | Yes Occasional | Yes Monthly | Yes Occasional | No -- | Yes Occasional | Yes Monthly | Yes Monthly |
| Nat'l Achievement Ranking | 50%+ | 40%+ | -- | -- | 40% | 68% | 60% | 60% | 20% | 50% |

The instrument used to test the first two hypotheses was Baker's 36-item inventory of teacher functions. This instrument is an expansion of Ehman and Van Sickle's model in A Specialty Catalogue of Teaching Skills (1973, pp. 15-52). The inventory was expanded by Baker with the assistance of professors involved in teacher training of alternative school teachers at Indiana University and by teachers in the Monroe County Indiana Alternative High School. (See Appendix A)

The instruments contain a variety of traditional and non-traditional teaching functions. The teachers' inventory has twenty-one items which would be considered non-traditional, eight that are traditional, and seven that combine elements of

both traditional and non-traditional teaching. The student inventory has twelve non-traditional items, ten traditional items, and five that contain elements of both traditional and non-traditional teaching.

The instrument used to gather data concerning the individual student's perception of instructional practices by a given teacher was Baker's 27-item inventory of teaching functions. This instrument underwent similar developmental procedures. The 27-item inventory (see Appendix B) was derived from the 36-item instrument. Students were asked to rate on a scale of one to ten how often each of the twenty-seven functions occurs in their classrooms. The one to ten scale was selected to enhance fine discrimination and to eliminate the possible selection of a neutral middle number. Teachers were asked first to rate each of the thirty-six items on a scale of one to five in relation to the degree of emphasis it received in their classroom. The teachers were then asked to rank order each of the five groups of functions they have established through rating.

The teacher's instruments were administered to teachers by the researcher or his personally trained agent in representative academic areas in the ten schools in the study. Due to differences in the number of teachers in each academic area, representative samples were used (e.g., an alternative program may have had one science teacher while the conventional program in the district may have had six. In such a case, an effort was made to collect data from those conventional teachers whose academic classes most closely parallel that of the alternative school teacher.) One representative class of each participating teacher in each type of school completed the 27-item student inventory also to be administered by the researcher. The expected time needed for teachers and students to complete the instrument was fifteen to forty-five minutes.

## ANALYSIS

The data provided by the teachers' 36-item instrument were analyzed according to the ratings each teacher gave each function on a scale of one to five. A rating of one would indicate no emphasis being placed on the function while a rating of five would indicate a very great amount of emphasis. Two, three and four would indicate little, some and great emphasis respectively. A mean rating was calculated for each function as rated by each group of teachers (conventional and alternative). F scores were derived for each pair of ratings with the significance being determined through the utilization of the $p < .05$ level of probability.

A factor analysis was performed on the teacher ratings to investigate the clustering of teacher responses in respect to the pre-determined areas of teacher function represented in the 36-item inventory. Those areas include goal selection and planning, selection and use of materials, instruction and class management, counseling, and evaluation. The purpose of this factor analysis will be to provide data regarding the construct validity of the instrument.

A second component of the 36-item teacher inventory is the ranking of functions. Each teacher was asked to rank order by degree of emphasis given, each of the thirty-six items. Mean rankings of the functions were determined for each group of teachers. Comparisons of group means were conducted through the listing of the rank ordered mean scores by subgroup and their degree of difference. The items' significance was determined through the use of the $p < .05$ level of probability.

The students rated each of the twenty-seven items on their inventories on a scale of one to ten. Mean ratings for each group were determined and a T value established for each pair of ratings. Significances were determined through the use of a two-tailed test of significance at the $p < .05$ level of probability.

Correlation coefficients for each of the means of the twenty-seven items common to each inventory were computed for both alternative and conventional schools. The purpose of this comparison was to investigate the degree of correlation among teacher and student perceptions of emphasis given to each of the instructional functions. A positive correlation would indicate a high level of congruence in teacher and student perceptions thus establishing concurrent validity of the teacher instrument.

## FINDINGS

### Concurrent Validity

An effort to establish concurrent validity of the teacher instrument was conducted through a comparison of mean ratings of coinciding items on the teacher and student instruments. The Pearson product-moment correlation coefficient was utilized to determine a coefficient and its significance for each of the matching items of the two instruments. The results of this analysis are reported in Table 1.

Of the twenty-six student items which matched with teacher items, twenty-two yielded a correlation coefficient which was significant at the $p < .05$ level of probability. Nineteen more items were significant at the $p < .01$ level. Four of the top five coefficients clustered into the predetermined area of evaluation and

TABLE 1 PEARSON CORRELATION COEFFICIENTS

| Item # | | Coef-ficient | Pre-determined Area* | Signifi-cance |
|---|---|---|---|---|
| 31. | Evaluate student work and assign numerical or letter grades | .74 | E | .001 |
| 27. | Administer post-tests of student knowledge | .60 | E | .001 |
| 32. | Use student learning contracts | .60 | E | .001 |
| 13. | Provide short-term out-of-school experiences | .59 | I | .001 |
| 33. | Grade on a pass-fail basis | .46 | E | .001 |
| 02. | Locate and select audio-visual materials | .44 | P | .001 |
| 06. | Plan learning activities for the class | .43 | P | .001 |
| 08. | Plan varied learning activities for sub-groups within class | .43 | P | .001 |
| 09. | Maintain an orderly classroom | .41 | I | .001 |
| 30. | Use written evaluations of student achievement | .41 | E | .001 |
| 17. | Use community resources in class | .38 | S | .001 |
| 14. | Provide extended out-of-school experiences | .37 | I | .001 |
| 35. | Ask questions that elicit students' feelings | .36 | I | .001 |
| 18. | Ask questions that provide for student recall and integration of prior knowledge | .35 | I | .001 |
| 11. | Assist individual students in dealing with personal concerns | .34 | C | .002 |
| 34. | Select or prepare material for individualized learning | .33 | S | .002 |



TABLE 1 (Continued)

| Item # | | Coef-ficient | Pre-determined Area* | Signifi-cance |
|---|---|---|---|---|
| 12. | Lead discussions | .31 | I | .003 |
| 16. | Present subject matter orally and visually | .31 | I | .003 |
| 15. | Provide on-going out-of-school experiences | .29 | I | .006 |
| 25. | Administer pre-tests of student knowledge | .24 | E | .020 |
| 21. | Ask questions that elicit student ideas | .22 | I | .026 |
| 01. | Select learning objectives appro-priate for students | .21 | P | .033 |
| 04. | Assist students in clarifying and deciding on their learning objectives | .15 | P | .093 |
| 10. | Assist students in planning their own learning activities | .07 | P | .282 |
| 19. | Use simulations | .06 | S | .303 |
| 23. | Elicit and use student reactions to modify instructional methods | -.07 | E | .277 |

*Predetermined areas of teaching functions: P = Planning and selection of objectives; S = Selection and use of materials; I = Instruction and class management; E = Evaluation; C = Counseling.

eight of the top ten coefficients fell either into the areas of planning or evaluation. No particular function characterized all of the items with low correlation coefficients, however, five of the lowest six items had to do with the involvement of student input into the development and implementation of instructional practices.

An analysis of correlation and coefficients by subgroup means demonstrates a relatively high level of agreement between the teacher and students in each subgroup (alternative/conventional; see Table 6). The alternative school teachers and students agreed most strongly on seven items (31, 32, 13, 34, 14, 15, 27). Of the seven, two (31, 27) had to do with traditional evaluation of achievement, and the remaining five (32, 13, 34, 14, 15) were associated with more non-traditional or innovative teaching practices involving the use of student contracts, individualized instruction, and out-of-school learning experiences. The greatest disagreement between the students and teachers in the alternative subgroup came on items 19, 33, 4, and 23, which had to do with the use of simulations, pass/fail grading, assisting students in setting learning objectives, and eliciting student input to modify instructional practices. Each of these items could be considered as non-traditional in nature. Yet when these items were compared with the student responses to similar items, little agreement was present in reference to their occurrence in the alternative teachers' classrooms. Of particular interest was item 23, "Elicit and use student reactions to modify instructional methods," which received a negative correlation (-.06) from the alternative teachers and students. The teachers rated this item (4.18) as an instructional practice on which they placed great emphasis. The students rated the same item (4.73, Scale of 1-10) as a practice that does not occur frequently.

TABLE 2 PEARSON CORRELATION COEFFICIENTS BY SUBGROUP

| Item # | | Alt* | Sig. | Con | Sig. | A.D. |
|---|---|---|---|---|---|---|
| 31. | Evaluate student work and assign numerical or letter grades | .92 | .001 | .56 | .001 | .36 |
| 32. | Use student learning contracts | .70 | .001 | .50 | .001 | .20 |
| 13. | Provide short-term out-of-school experiences | .58 | .001 | .61 | .001 | .3 |
| 34. | Select or prepare material for individualized learning | .50 | .001 | .13 | .230 | .37 |
| 14. | Provide extended out-of-school experiences | .49 | .001 | .39 | .009 | .10 |
| 15. | Provide on-going out-of-school experiences | .49 | .001 | .18 | .147 | .31 |
| 27. | Administer post-test of student knowledge | .47 | .001 | .74 | .001 | .27 |
| 02. | Locate and select audio-visual materials | .42 | .004 | .46 | .002 | .4 |

TABLE 2 (Continued)

| Item # | | Alt* | Sig. | Con | Sig. | A.D. |
|---|---|---|---|---|---|---|
| 06. | Plan learning activities for the class | .40 | .006 | .45 | .003 | .5 |
| 12. | Lead discussions | .40 | .066 | .23 | .087 | .17 |
| 21. | Ask questions that elicit student ideas | .35 | .014 | .14 | .207 | .21 |
| 35. | Ask questions that elicit students' feelings | .34 | .016 | .38 | .011 | .4 |
| 08. | Plan varied learning activities for sub-groups within class | .33 | .019 | .51 | .001 | .18 |
| 11. | Assist individual students in dealing with personal concerns | .31 | .026 | .34 | .019 | .3 |
| 16. | Present subject matter orally and visually | .31 | .026 | .32 | .025 | .1 |
| 17. | Use community resources in class | .30 | .031 | .47 | .002 | .17 |
| 18. | Ask questions that provide for student recall and integration of prior knowledge | .30 | .032 | .38 | .010 | .8 |
| 09. | Maintain an orderly classroom | .29 | .037 | .55 | .001 | .26 |
| 30. | Use written evaluations of student achievement | .27 | .049 | .54 | .001 | .27 |
| 10. | Assist students in planning their own learning activities | .23 | .084 | -.09 | .304 | .31 |
| 01. | Select learning objectives appropriate for students | .20 | .112 | .28 | .045 | .8 |
| 25. | Administer pre-tests of student knowledge | .20 | .112 | .27 | .052 | .7 |
| 04. | Assist students in clarifying and deciding on their learning objectives | .17 | .148 | .13 | .228 | .4 |
| 19. | Use simulations | .06 | .366 | .03 | .426 | .3 |
| 33. | Grade on a pass-fail basis | .01 | .473 | .51 | .001 | .50 |
| 23. | Elicit and use student reactions to modify instructional methods | -.06 | .368 | -.12 | .248 | .6 |

*Alt = Alternative schools; Sig = Significance; C = Conventional schools; A.D. = Absolute difference between subgroup correlations

The conventional teachers and students agreed most strongly on eight items (31, 32, 13, 27, 8, 9, 30, and 33). Two of those (27, 31) involved traditional evaluation, three (30, 32, 33) involved non-traditional evaluation, one (13) involved out-of-school learning, and the remaining two (8, 9) regarded traditional classroom practices. The conventional teachers and students disagreed most strongly on six items (4, 10, 15, 19, 21, 23). All of these represent non-traditional teaching practices which the teachers rated as occurring more frequently

than did the students. Items 4, 19, and 23 coincide with three of the areas of least agreement between the alternative school teachers and students. Item 23 represented the lowest correlation of the conventional group as well.

The results of the Pearson product-moment determination of correlation coefficients lend support toward the establishment of the instruments' concurrent validity. Over three-fourths of the items demonstrated agreement between the teachers and students as to the perceived occurrence of those particular functions. Based on the total group and subgroup correlations, the teacher instrument possesses substantial concurrent validity.

Construct Validity

The purpose of further establishing the validity of the teacher instrume t was addressed through a measure of construct validity. The 36-item inventory utilized in this study, developed by Baker (1975, pp. 72-74) was designed to measure five areas of instructional functions. They were planning, selection and use of materials, instruction and class management, evaluation, and counseling. A construct or factor analysis was conducted to determine the degree of actual clustering of items into definable areas and to compare results with Baker's original categorical breakdown of teaching functions. The factor analysis was structured to sort factors in groupings of three, four, and five clusters. The most appropriate number of clusters in each subgroup was three, due to the number of items in each cluster and their congruence. Tables 3 and 4 display the clustering of items yielded by the N = 3 factor analysis.

TABLE 3 FACTOR ANALYSIS OF TEACHER DATA (N = 3)

| | Factor 1 | Factor 2 | Factor 3 |
|---|---|---|---|
| Rate 01 | .13635 | .50025 | .18252 |
| Rate 02 | .31555 | .02175 | -.05362 |
| Rate 03 | .17335 | -.15822 | -.06507 |
| Rate 04 | .49932 | -.07238 | .21254 |
| Rate 05 | .52404 | -.32089 | .01269 |
| Rate 06 | .02417 | .72212 | -.10277 |
| Rate 07 | .29906 | .24034 | .14536 |
| Rate 08 | .49961 | .05941 | .39233 |
| Rate 09 | -.14980 | .70855 | -.11346 |
| Rate 10 | .59062 | -.10979 | .28505 |
| Rate 11 | .41833 | -.38972 | .13397 |
| Rate 12 | .11426 | .20269 | -.55493 |
| Rate 13 | .45093 | -.29727 | .19839 |
| Rate 14 | .19118 | -.27122 | .40306 |
| Rate 15 | .26962 | -.23471 | .27422 |
| Rate 16 | -.04846 | .19422 | -.38245 |
| Rate 17 | .28592 | -.22274 | .02257 |
| Rate 18 | -.04560 | .65763 | -.06001 |
| Rate 19 | .33264 | .29414 | .06653 |
| Rate 20 | .44077 | -.04761 | .03378 |
| Rate 21 | .44590 | -.01183 | -.19942 |
| Rate 22 | -.02597 | .19688 | .57883 |
| Rate 23 | .17934 | -.16754 | .27059 |
| Rate 24 | -.12360 | .22566 | .38529 |
| Rate 25 | .06631 | .05065 | .68216 |
| Rate 26 | .32991 | -.06008 | .60883 |
| Rate 27 | -.16506 | .47693 | .22582 |
| Rate 28 | .45474 | -.00630 | .34850 |
| Rate 29 | .60715 | -.40178 | -.07139 |
| Rate 30 | -.04508 | .03617 | .34772 |
| Rate 31 | -.11442 | .69908 | -.18800 |
| Rate 32 | .14885 | -.16021 | .56636 |
| Rate 33 | .09941 | -.31559 | .03492 |
| Rate 34 | .36366 | .18428 | .51452 |
| Rate 35 | .71417 | -.25599 | -.04553 |
| Rate 36 | .53045 | .22421 | .26099 |



TABLE 4 FACTOR LOADINGS OF TEACHER DATA (N = 3 FACTORS)

| Item # | | Loading |
|---|---|---|
| | **Factor 1** | |
| 35. | Ask questions that elicit students' feelings | .71 |
| 29. | Facilitate group processes within class | .61 |
| 10. | Assist students in planning their own learning activities | .59 |
| 36. | Maintain resource centers or learning centers in the classroom | .53 |
| 05. | Adapt material from several sources in lieu of a textbook | .52 |
| 08. | Plan varied learning activities for sub-groups within class | .50 |
| 04. | Assist students in clarifying and deciding on their learning objectives | .50 |
| 11. | Assist individual students in dealing with personal concerns | .48 |
| 21. | Ask questions that elicit student ideas | .45 |
| 28. | Administer post-tests of student attitudes | .45 |
| 13. | Provide short-term out-of-school experiences (arrange and supervise one-day field trips, picnics, etc.) | .45 |
| 20. | Act as a resource for individual students or small groups | .44 |
| | **Factor II** | |
| 06. | Plan learning activities for the class | .72 |
| 09. | Maintain an orderly classroom | .71 |
| 31. | Evaluate student work and assign numerical or letter grades | .70 |
| 18. | Ask questions that provide for student recall and integration of prior knowledge | .66 |
| 01. | Select learning objectives appropriate for students | .50 |
| 27. | Administer post-tests of student knowledge | .48 |
| | **Factor III** | |
| 25. | Administer pre-tests of student knowledge | .68 |
| 26. | Administer pre-tests of student attitudes | .61 |
| 22. | Provide remedial instruction | .58 |
| 32. | Use student learning contracts | .57 |
| 34. | Select or prepare material for individualized learning | .51 |
| 14. | Provide extended out-of-school experiences (arrange and supervise overnight field trips, camping trips, etc.) | .40 |

Twenty-four (sixty-six percent) of the thirty-six items on the teacher instrument demonstrated a positive loading in one of the three factor groupings. Each of the items in each grouping demonstrated a high degree of intergroup congruence, a primary concern in determining construct validity. The areas of congruence are: N = 1 - innovative, non-traditional teaching; N = 2 - structured traditional teaching; N = 3 - non-traditional teaching emphasizing individualized instruction. The total number of items with a high factor loading and the degree of inter-group congruence of the teacher factors demonstrates a significant degree of construct validity of the teacher instrument.

TABLE 6 FACTOR ANALYSIS OF STUDENT DATA

| | Factor 1 | Factor 2 | Factor 3 |
|---|---|---|---|
| Rate 01 | .44255 | -.06175 | -.08308 |
| Rate 02 | .14183 | .39864 | -.15738 |
| Rate 03 | .50905 | -.25420 | .14507 |
| Rate 04 | -.15648 | .38046 | .32141 |
| Rate 05 | .57725 | -.12011 | -.14914 |
| Rate 06 | -.16125 | .43227 | -.16228 |
| Rate 07 | .39718 | -.01555 | .02836 |
| Rate 08 | .01734 | .32778 | .12609 |
| Rate 09 | .00301 | .35179 | .35314 |
| Rate 10 | .56999 | .17589 | .00914 |
| Rate 11 | -.12046 | .49522 | -.04194 |
| Rate 12 | -.14762 | .26578 | .09031 |
| Rate 13 | -.14528 | .49959 | .07868 |
| Rate 14 | .54348 | .08770 | -.10295 |
| Rate 15 | .04282 | .38220 | .10036 |
| Rate 16 | .08907 | .45645 | -.00761 |
| Rate 17 | .65119 | .19158 | .14660 |
| Rate 18 | .11265 | .57452 | .25975 |
| Rate 19 | .07739 | .59590 | .25618 |
| Rate 20 | -.29027 | .13891 | .23162 |
| Rate 21 | -.12328 | .30353 | .43056 |
| Rate 22 | .08016 | .07677 | .32174 |
| Rate 23 | .64876 | -.11802 | .11094 |
| Rate 24 | .46752 | .07403 | -.37808 |
| Rate 25 | .06460 | -.01578 | .45026 |
| Rate 26 | -.16321 | .19959 | .42716 |
| Rate 27 | .00369 | -.02066 | .21244 |

TABLE 7 FACTOR LOADINGS OF STUDENT DATA (N = 3)

| Item # | | Loading |
|---|---|---|
| | Factor 1 | |
| 17. | The teacher asks questions about information we have learned | .65 |
| 23. | The teacher gives students a test after a topic or unit is completed | .65 |
| 05. | The teacher decides what we will do in class | .58 |
| 10. | The teacher leads discussions | .57 |
| 14. | The teacher lectures | .54 |
| 03. | We use textbooks | .51 |
| 01. | The teacher decides what students should learn | .44 |
| 07. | The teacher keeps the class quiet and orderly | .40 |
| | Factor II | |
| 19. | The teacher asks students to express their feelings | .60 |
| 18. | The teacher asks for student ideas | .57 |
| 13. | We spend part of the school day working or studying in the community | .50 |
| 11. | We take one day field trips | .50 |
| 16. | We use learning games or role playing in class | .46 |
| 06. | Small groups work on different things during class | .43 |
| 15. | We have guest speakers in class | .38 |
| 04. | The teacher helps students decide what they want to learn | .38 |
| | Factor III | |
| 25. | Written evaluations of students' work are sent to parents | .45 |
| 21. | The teacher asks students to evaluate his or her teaching | .43 |
| 26. | Students sign learning contracts | .43 |

Nineteen (seventy-five percent) of the twenty-seven student items demonstrated a positive loading in one of the three factor groupings. Each of the items in each grouping demonstrated a high degree of intergroup congruence. The areas of congruence are: N = 1 - structured, traditional teaching; N = 2 - non-traditional teaching; N = 3 - non-traditional evaluation. The total number of items demonstrating a high level of intergroup congruence and factor loading indicates a substantial level of construct validity of the student instrument.

The results of the factor analysis indicate the clustering of items to represent rather distinctive styles of instruction, rather than the five teaching functions suggested by Baker's theory (1975). Thus, the five predetermined areas

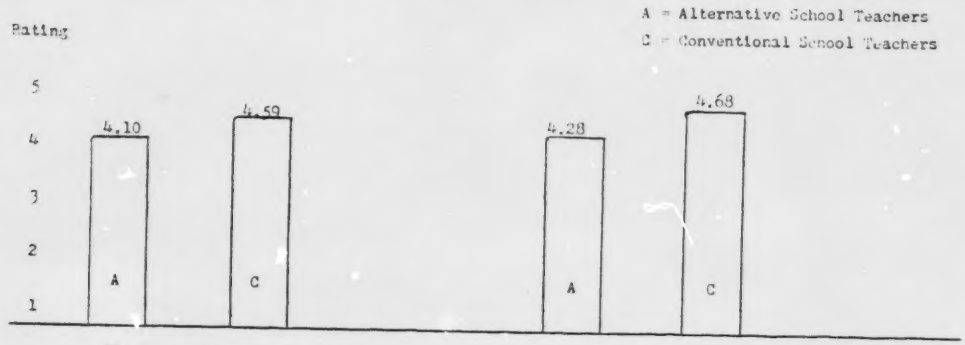
of teaching functions or tasks as determined by Baker are not confirmed by this empirical analysis. Based on the factor analysis of student and teacher responses, it appears that the majority of items on the instruments demonstrate construct validity but in a different set of factors than those speculated on by Baker. The substantial degree of positive loading and factor congruence in each instrument, and the correlation of congruent groupings between the teacher and student instruments suggest a significant level of construct validity within each instrument.

Teacher Rating of Functions

The thirty-nine alternative and thirty-seven conventional teachers responded with significant difference on seventeen (forty-six percent) of the thirty-six items. The mean rating for each item was computed for each group of teachers. An analysis of variance was computed on each item which yielded an F ratio and the item's level of significance. The $p < .05$ level was utilized in determining the significance of the items. Nine of the seventeen items were determined to be significant at the $p < .05$ level, two of the items were found to be significant at the $p < .01$ level, and six of the items indicated significance at the $p < .001$ level.

The large number of items representing significantly different responses suggests important variations exist between teachers in conventional and alternative schools. In order to provide direct means of comparisons, the significant items will be discussed in relation to their association with Baker's (1975) five categories of teaching functions. They include planning, selection and use of materials, instruction and class management, evaluation, and counseling. However, the majority of the items do reflect concurrent validity and are compatible with Baker's five areas. Since this study is an expanded replication of Baker's earlier work, it was judged useful to utilize Baker's grouping format so that direct comparisons could be made between the Baker study and the findings of this research. However, any future studies utilizing this instrument should abandon the task or function categories and be organized around the more general stylistic categories. As was indicated in the discussion of construct validity, the teacher and student groupings as reported in this study tended to factor into instructional styles rather than functions as described by Baker.

Figure 1. Planning: Selection of Objectives and Planning of Activities




#6. Plan learning activities for the class.

F Ratio = 5.81

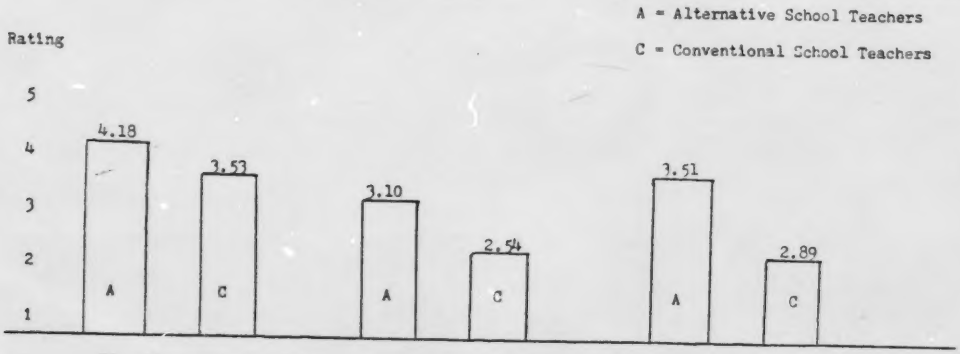
p = .018

#1. Select learning objectives appropriate for students.

F Ratio = 4.03

p = .048

Figure 2. Selection and Use of Materials




#5. Adapt material from several sources in lieu of a textbook.

F Ratio = 6.00

p = .017

#17. Use community resources in class (invite speakers, obtain material from social service agencies, government, industry, etc.)

F Ratio = 3.87

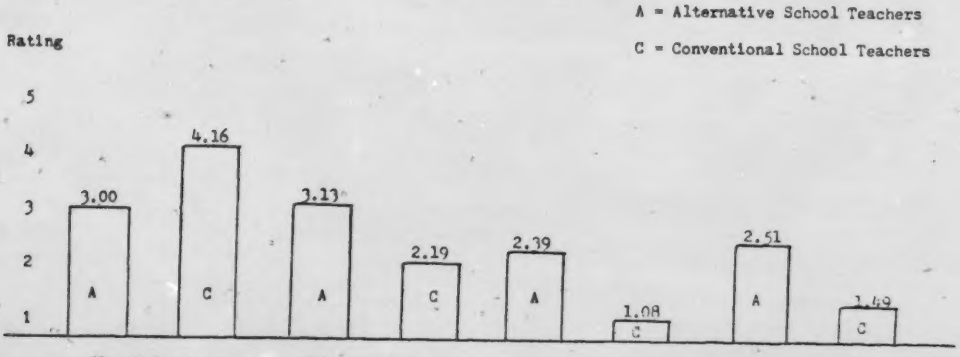
p = .05

#34. Select or prepare material for individualized learning.

F Ratio = 5.24

p = .02

Figure 3. Instruction and Class Management




#9. Maintain an orderly classroom.

F Ratio = 24.01

p = .000

#13. Provide short term out-of-school experiences (one day trips, etc.)

F Ratio = 9.24

p = .003

#14. Provide extended out-of-school experiences (camping trips, field trips, etc.)

F Ratio = 26.89

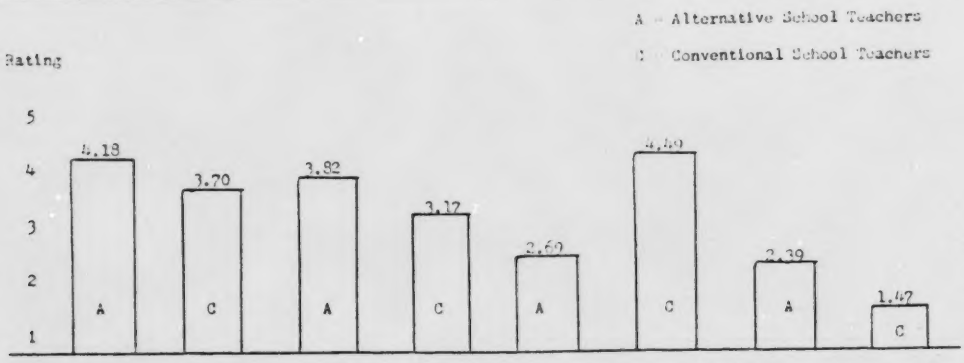
p = .000

#15. Provide on-going out-of-school experiences (work study, etc.)

F ratio = 12.87

p = .001

Figure 4. Evaluation



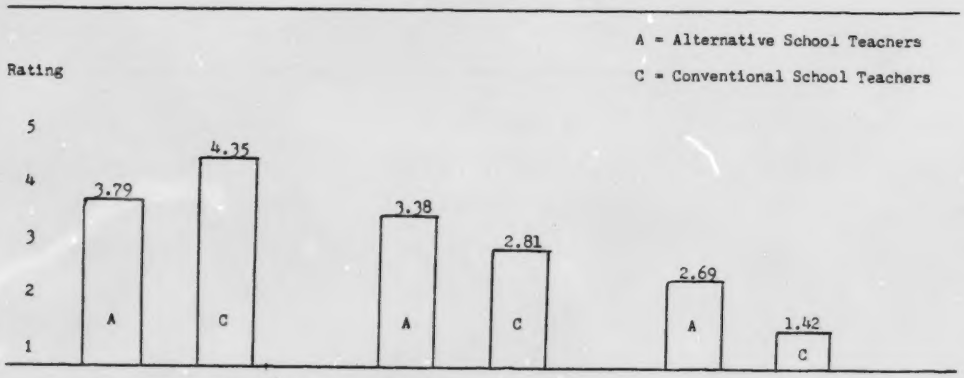

#23. Elicit and use student reactions to modify instructional
F Ratio = 4.47
p = .038

#30. Use written evaluations of student achievement.
F Ratio = 3.73
p = .054

#31. Evaluate students' work and assign numerical or letter grades.
F Ratio = 30.65
p = .000

#33. Grade on a pass-fail basis.
F Ratio = 7.26
p = .009

Figure 3. (Continued)

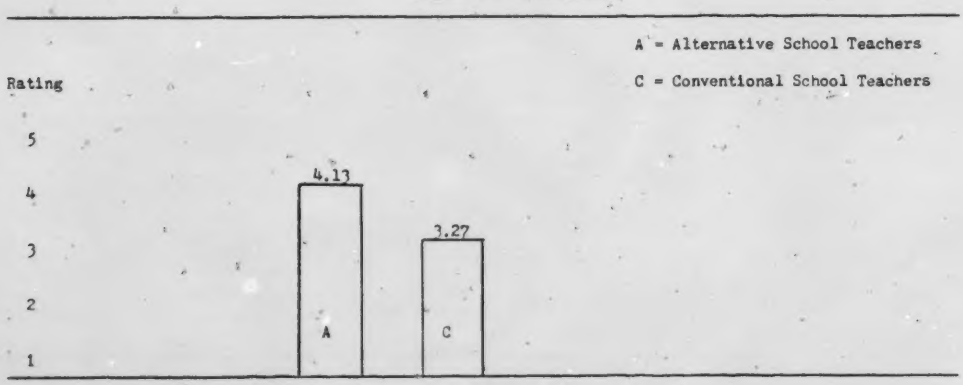



#18. Ask questions that provide for student recall and integration of prior knowledge.
F Ratio = 5.26
p = .025

#22. Provide remedial instruction.
F Ratio = 4.45
p = .038

#32. Use student learning contracts.
F Ratio = 22.00
p = .000

Figure 5. Counseling




#11. Assist individual students in dealing with their personal concerns.
F Ratio = 12.67
p = .001

Teacher Ranking of Functions

Following the rating of functions, each teacher was asked to rank order all of the functions from one to thirty-six according to the degree of emphasis each received in his/her teaching. An analysis of variance was conducted on the data from each teacher which determined the mean ranking on each item for each subgroup (alternative school teachers and conventional school teachers) and the corresponding level of significance for each comparison. Thirteen of the thirty-six comparisons of mean rankings yielded were significant at the $p < .05$ level. Of the thirteen, five were significant at the $p < .001$ level and two were significant at the $p < .01$ level.

The results of the ranking of significant data indicate a sizable disparity in group means; the smallest difference being 3.43 on item 6, "Plan learning activities for the class," and the largest being 10.62 on item 32, "Use student learning contracts." The alternative teachers' mean rankings exhibited a range of 10.83 while the conventional teachers' range was much more diverse at 24.30. This disparity would indicate that of the items displaying a significant difference, the conventional teachers tended to rank either higher or lower than the alternative school teachers. The average mean ranking for alternative teachers was 13.04 and 16.75 for conventional teachers. The average mean difference on the significant items was 6.52 between the groups.

TABLE 8 TEACHER RANKINGS OF STATISTICALLY SIGNIFICANT ITEMS ($P < .05$)

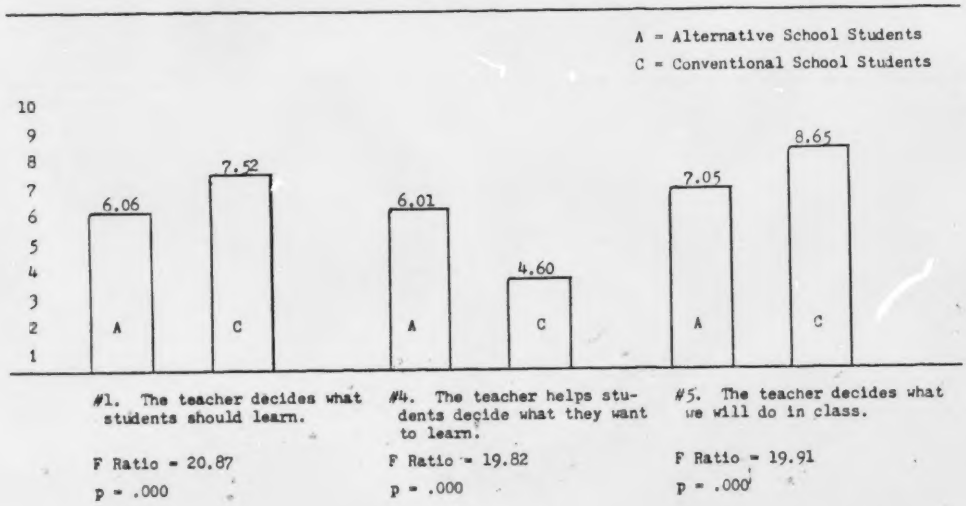
| Item # | Teacher Function | Alternative Mean | Alternative Rank* | Conventional Mean | Conventional Rank | M.D. | Sig. |
|---|---|---|---|---|---|---|---|
| 01. | Select learning objectives appropriate for students | 8.76 | 1 | 3.32 | 1 | 5.44 | .001 |
| 06. | Plan learning activities for the class | 9.44 | 2 | 6.01 | 2 | 3.43 | .044 |
| 11. | Assist individual students with personal concerns | 9.45 | 3 | 16.97 | 7 | 7.52 | .000 |
| 16. | Present subject matter orally and visually | 11.24 | 4 | 7.24 | 3 | 4.00 | .014 |
| 30. | Use written evaluations of student achievement | 11.27 | 5 | 16.85 | 6 | 5.58 | .020 |
| 34. | Select or prepare material for individualized learning | 12.16 | 6 | 18.68 | 8 | 6.52 | .000 |
| 32. | Use student learning contracts | 15.80 | 7 | 26.42 | 11 | 10.62 | .000 |
| 13. | Provide short-term out-of-school learning experiences | 15.89 | 8 | 20.54 | 9 | 4.65 | .053 |
| 09. | Maintain an orderly classroom | 16.47 | 9 | 10.70 | 4 | 5.77 | .015 |
| 14. | Provide extended out-of-school learning experiences | 18.08 | 10 | 27.62 | 13 | 9.64 | .001 |
| 15. | Provide on-going out-of-school learning experiences | 18.67 | 11 | 24.88 | 10 | 6.21 | .038 |
| 31. | Evaluate student work and assign numerical or letter grades | 18.78 | 12 | 11.20 | 5 | 7.58 | .005 |
| 33. | Grade on a pass-fail basis | 19.59 | 13 | 27.38 | 12 | -7.79 | .009 |
| | Overall means | 13.05 | | 16.75 | | 6.52 | |

*Rank = Ranking; M.D. = Mean Difference; Sig. = Significance.

Student Rating of Functions

A 27-item questionnaire which was developed in conjunction with the 36-item teacher instrument was administered to a total of 1,405 students in the classes of the seventy-six participating teachers. Five hundred and ninety-six of the students were in alternative schools and 809 in conventional schools. The students were asked to rate each of the twenty-seven teaching functions in reference to how often they occurred in the class in which the instrument was completed. The rating scale utilized a ten point spread with one being never and ten being always. Statistically significant differences at the $p < .05$ level were found on seventeen of the 27 items (63 percent). Of the seventeen items, nine were significant at the .001 level or beyond, four at the .01 level or beyond, and the remaining four at the .05 level or beyond.

Figure 6. Planning and Selection of Learning Objectives

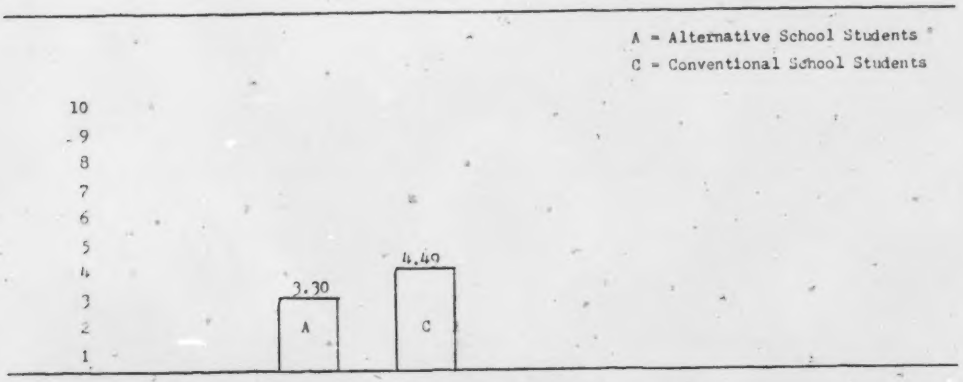



#1. The teacher decides what students should learn.
F Ratio = 20.87
p = .000

#4. The teacher helps students decide what they want to learn.
F Ratio = 19.82
p = .000

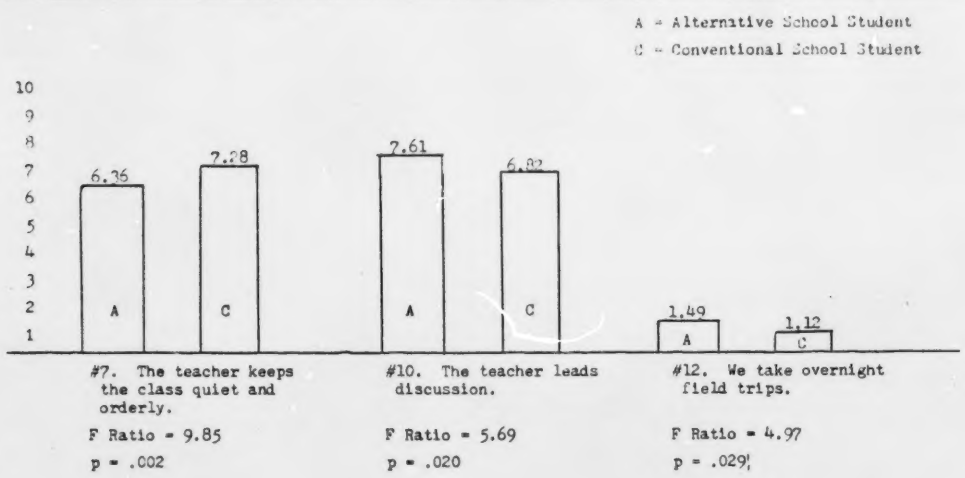
#5. The teacher decides what we will do in class.
F Ratio = 19.91
p = .000

Figure 7. Selection and Use of Materials




#2. The teacher uses audio visual materials.
F Ratio = 7.38
p = .008

Figure 8. Instruction and Class Management

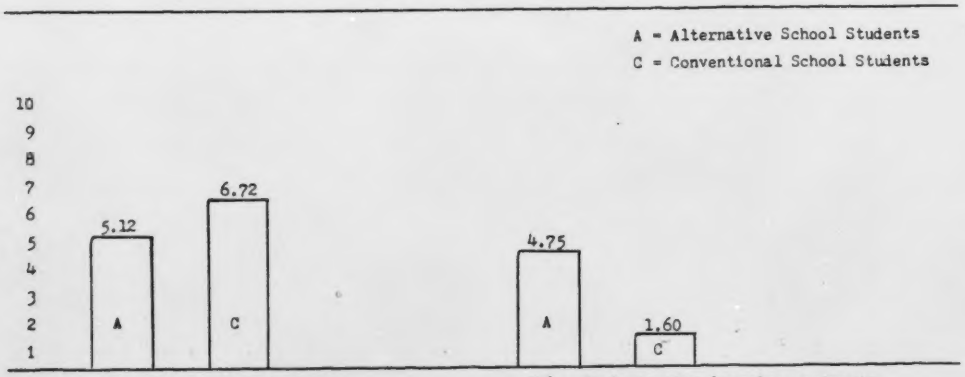



#7. The teacher keeps the class quiet and orderly.
F Ratio = 9.85
p = .002

#10. The teacher leads discussion.
F Ratio = 5.69
p = .020

#12. We take overnight field trips.
F Ratio = 4.97
p = .029

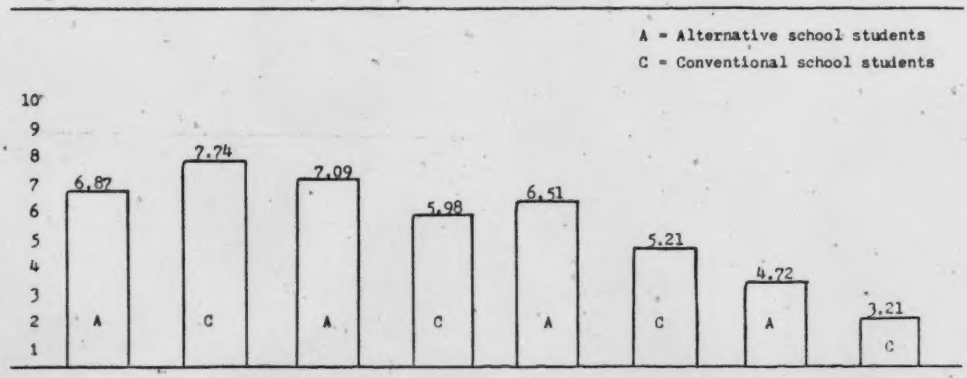
Figure 8. (Continued)




#14. The teacher lectures.
F Ratio = 14.68
p = .000

#26. Students sign learning contracts.
F Ratio = 47.04
p = .000

Figure 9. Evaluation



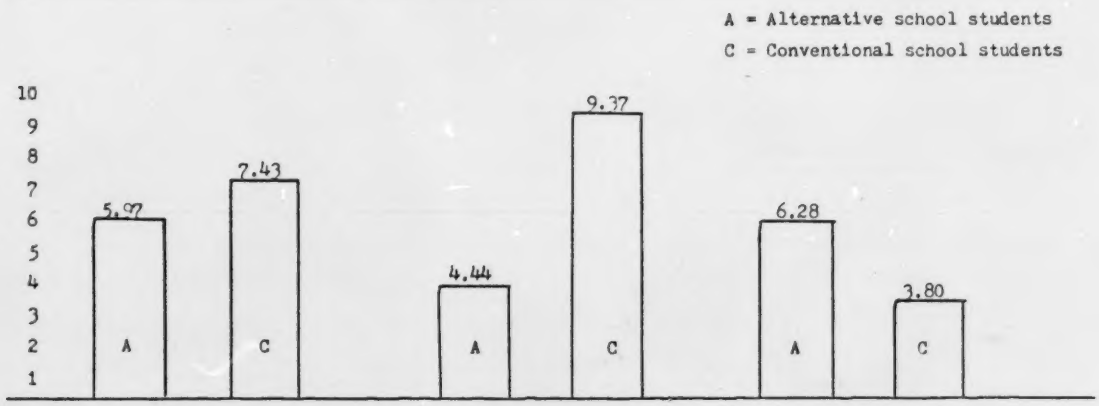

#17. The teacher questions about information we have learned.
F Ratio = 5.39
p = .023

#18. The teacher asks for student ideas.
F Ratio = 9.95
p = .002

#19. The teacher asks students to express their feelings.
F Ratio = 9.57
p = .003

#21. The teacher asks students to evaluate his/her teaching.
F Ratio = 19.14
p = .000

Figure 9. (Continued)




#23. The teacher gives students a test after a topic or unit is completed.

F Ratio = 5.44

p = .022

#24. The teacher gives numerical or letter grades on report cards.

F Ratio = 63.20

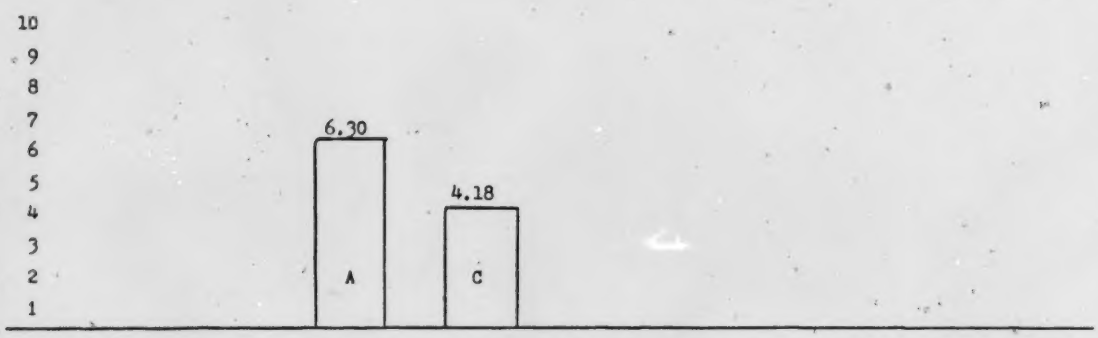
p = .000

#25. Written evaluations of students' work are sent to parents.

F Ratio = 26.47

p = .000

Figure 10. Counseling




#9. The teacher helps students individually with their personal problems.

F Ratio = 47.83

p = .000

## CONCLUSIONS

The following conclusions have been drawn from an analysis of the findings. They are supported by significant data generated through teacher ranking and rating of instructional functions and student rating of their perception of the regularity at which the functions occurred in their classrooms.

1. There is significant difference between teachers' perceptions of their instructional functions in conventional and alternative schools.

This conclusion is supported by each of the three areas of data analysis including teacher rating and ranking, and student rating.

### Teacher Ranking of Functions

The findings of a comparison of the subgroup rankings indicate a significant difference on thirteen of the thirty-six functions. Six of the items were significant at the $p < .05$ level, two at the $p < .01$ level, and five at the $p < .001$ level. Of the significant items, the smallest mean difference in subgroup ranking was 3.43 (#6) with the greatest difference being 10.83 (#32), demonstrating a substantial level of group difference regarding the degree of instructional emphasis given the item.

The following exhibit (4) illustrates the items that received a significantly higher or lower ranking from the alternative school teacher subgroup indicating the likelihood of the items' occurrence in alternative school classrooms.

EXHIBIT 4. COMPARISON OF RANKING DATA BY SUBGROUP MEANS ($p < .05$)

| Alternative school teachers are more likely to | Alternative school teachers are less likely to place as much emphasis on |
|---|---|
| Assist individual students in dealing with personal concerns. | |
| Provide short-term out-of-school experiences (arrange and supervise one-day field trips, picnics, etc.). | Selecting learning objectives appropriate for students. |
| Provide extended out-of-school experiences (arrange and supervise overnight field trips, camping trips, etc.). | Planning learning activities for the class. |
| Provide on-going out-of-school experiences (arrange and supervise work-study experiences, supervise students). | Maintaining an orderly classroom. |
| Use written evaluations of student achievement. | Presenting subject matter orally and visually. |
| Use student learning contracts. | Evaluating student work and assigning numerical or letter grades. |
| Grade on a pass-fail basis. | |
| Select or prepare material for individualized learning. | |
| Ask questions that elicit students' feelings. | |

The differences between the significant items as ranked by teachers in alternative and conventional schools indicate that the alternative teachers place higher levels of emphasis on non-traditional approaches to: the selection and use of materials (#34); instruction and class management (#13, 14, 15, 32); evaluation (#30, 33, 35); and counseling (#11), than do their conventional counterparts.

In turn, the alternative teachers appear less likely to place as great an emphasis on the traditional approaches to: planning and selection of objectives (#1, 6, possibly suggesting the alternative teachers desire to involve the students in these planning functions rather than assuming total responsibility themselves); instruction and class management (#9, 16); and evaluation (#31).

Teacher and Student Rating of Functions

An analysis of teacher ratings by subgroup demonstrated a significant difference ($p < .05$) on seventeen of the thirty-six items regarding the instructional emphasis each subgroup placed on the item. The comparison of student ratings to teacher ratings resulting in subgroup correlation coefficients demonstrates that students tend to agree with their teachers in reference to the occurrence of specific instructional functions within their classrooms. The analysis of alternative school teacher-student correlation indicated agreement on nineteen of the twenty-seven items on the student survey in reference to the items' occurrence in the classrooms. The conventional school students and teachers indicated agreement on the occurrence of seventeen functions. An acknowledgement of this teacher-student congruence, coupled with a comparison of the items by subgroup demonstrates that teachers in each of the settings differ in practice as well as perceptual belief.

The teacher and student ratings have been grouped in reference to the items' association with one of the five areas. They were planning, selection and use of materials, instruction and class management, evaluation, and counseling.

Planning

The data from the area of planning (see Figures 1 and 6) indicate that conventional teachers and students agree that decisions regarding the instructional format of their classrooms are more likely to be made by the teacher. A lower mean response by alternative teachers on item 1, "Select learning objectives appropriate for students," and 6, "Plan learning activities for the class," coupled with lower

alternative school student responses on items 1, "The teacher decides what students should learn," 5, "The teacher decides what we will do in class," and a higher response on 4, "The teacher helps students decide what they want to learn" demonstrates that teachers in alternative schools are more likely to involve the students in planning and selecting learning objectives than are the conventional teachers. The data additionally indicate that conventional teachers are more concerned with planning activities for the entire class.

Selection and Use of Materials

Data regarding the selection and use of materials (see Figures 2 and 7) indicate that alternative school teachers are more inclined to utilize non-traditional instructional materials in their classrooms. Higher mean responses by alternative teachers on items 5, "Adapt material from several sources in lieu of a textbook," 17, "Use community resources in class," and 34, "Select or prepare material for individualized learning," demonstrate this interest in non-traditional materials. The selection or development of materials designed for individual use demonstrates an interest on the part of the alternative school teachers to address student needs individually as well as in a group or class format.

Instruction and Class Management

Teacher responses to items involving instruction and class management (see Figures 3 and 8) further support the non-traditional practices employed by alternative teachers. While conventional teachers responded most highly on items 9, "Maintain an orderly classroom," and 15, "Ask questions that provide for student recall and integration of prior knowledge," alternative teachers demonstrated a higher mean rating on items dealing with the use of student contracts (32), out of school learning experiences (13, 14, 15) and the provision of remedial instruction (22). The conventional students concur that their teachers are more concerned with the maintenance of an orderly classroom (7), leading discussions (10) and lecturing (14) than are the alternative teachers. The alternative students supported their teachers regarding the increased probability that out-of-school experiences and student learning contracts occur more frequently in alternative schools.

Evaluation

The area of evaluation (see Figures 4 and 9) was characterized by distinct groupings of traditional and non-traditional items. The conventional teachers rated item 31, "Evaluate students' work and assign numerical or letter grades," dramatically higher than the alternative teachers, reflecting the traditional means of student evaluation found in most public schools. Two non-traditional forms of evaluation were identified by alternative school teachers as receiving significantly more emphasis than by their conventional counterparts. Item 33, "Grade on a pass-fail basis," and 30, "Use written evaluations of student achievement," each received a higher mean rating from the alternative teachers. The alternative teachers additionally indicated a preference for written evaluation over numerical or letter grading. Item 23, "Elicit and use student reactions to modify instructional methods," was also rated higher by alternative teachers than conventional teachers which illustrates a greater degree of effort by alternative teachers to obtain student input and utilize non-traditional means of evaluation.

The findings of the student subgroups strongly support the teacher data. The conventional school students reported that their teachers were apt to be more concerned with numerical or letter grading (24), and post testing (23, 17) than the alternative school teachers. The alternative school students stated that their teachers utilized written forms of evaluations to assess their achievement (25). Additionally, they found their teachers to be more concerned with their ideas (18), feelings (19) and opinions regarding the instructional program (21). These data demonstrate that alternative school teachers and students recognize and participate in a variety of non-traditional evaluative methods while the conventional teachers prefer the more traditional evaluative form of post-testing and the assignment of numberical or letter grades.

Counseling

The area of counseling contained one item which demonstrated a significant difference on each of the teacher and student subgroup menas. Item 11, "Assist individual students in dealing with their personal problems," was rated substantially higher by the alternative teachers. The similar student item, #9, "The teacher helps students individually with their personal problems," was also rated as occurring more often in alternative schools. These data illustrate a concern on the part of alternative school teachers to both individualize their interactions with students and to broaden their relationships to include non-academic matters (see Figures 5 and 10).

The following exhibits dramatize those functions which are apt to occur more frequently in the respective schools according to teacher and student data.

EXHIBIT CONCLUSION OF SIGNIFICANT RATING DATA (STUDENT)

| Students feel that in alternative schools, it is more likely that | Students feel in alternative schools, it is less likely that |
|---|---|
| the teacher helps students decide what they want to learn. | the teacher decides what students should learn. |
| the teacher helps students individually with their personal problems. | the teacher uses audio-visual materials. |
| we take over-night field trips. | the teacher decides what we will do in class. |
| the teacher asks for students' ideas. | the teacher keeps the class quiet and orderly. |
| the teacher asks students to express their feelings. | the teacher leads discussions. |
| the teacher asks students to evaluate his or her teaching. | the teacher lectures. |
| written evaluations of students' work are sent to parents. | the teacher asks questions about information we have learned. |
| students sign learning contracts. | the teacher gives students a test after a topic or unit is completed. |
| | the teacher gives numerical or letter grades on report cards. |

EXHIBIT CONCLUSIONS OF SIGNIFICANT RATING DATA (TEACHERS)

| Alternative school teachers are more likely to | Alternative school teachers are less likely to place as much emphasis on |
|---|---|
| Adapt material from several sources in lieu of a textbook. | |
| Assist individual students in dealing with personal concerns. | Selecting learning objectives appropriate for students. |
| Provide short-term out-of-school experiences (arrange and supervise one-day field trips, picnics, etc.). | Planning learning activities for the class. |
| Provide extended out-of-school experiences (arrange and supervise overnight field trips, camping trips, etc.). | Asking questions that provide for student recall and integration of prior knowledge. |
| Provide on-going out-of-school experiences (arrange and supervise work-study experiences, supervise students). | Maintaining an orderly classroom. |
| Use community resources in class (invite speakers; obtain material from social service agencies, government, industry, etc.). | Evaluating student work and assigning numerical or letter grades. |
| Provide remedial instruction. | |
| Elicit and use student reactions to modify instructional methods. | |
| Use written evaluations of student achievement. | |
| Use student learning contracts. | |
| Grade on a pass-fail basis. | |
| Select or prepare material for individualized learning. | |

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The analysis of the teacher rankings and teacher and student ratings of significant differences in subgroup means strongly supports the conclusion that alternative teachers' perceptions of instructional functions differ substantially from those of conventional teachers.

2. Teachers in alternative schools exhibit more internal consistency regarding their perceptions of instructional practices than do conventional teachers regarding the specific instructional functions measured by this study.

The analysis of mean rankings of teacher subgroup responses demonstrates a range of 24.30 in reference to the conventional teachers and 10.62 for the alternative teachers. (It is suggested that future studies consider additional means of verifying these differences in subgroup range. One possiblity would be the calculation of average mean and standard deviation responses by item within each subgroup.) These data indicate substantially more agreement on the part of the alternative teachers regarding their perceptions of instructional emphasis as a group. The large range of 24.30 for conventional teachers suggests a rather substantial lack of intra-group agreement in reference to their perceptions of instructional emphasis. This group disparity possibly suggests the existence of a greater diversity of teaching styles within conventional schools.

Additionally, this variance might be explained through the fact that teachers generally select and apply for positions in alternative schools on the basis of philosophical agreement with a particular type of instruction. Thus, the population of teachers in given alternative schools may well be less diverse regarding stylistic preferences due to self selection. A second possible reason is that in comprehensive, conventional high schools teachers may well have more freedom to exercise individual styles and practices. Finally, it has been widely assumed that large numbers of different instructional styles are in use in conventional schools. One might argue that it could be expected that a study of this nature would disclose a substantial amount of variance between the instructional styles of teachers in any large secondary conventional school.

3. Although this study has identified significant differences which characterize alternative and conventional teachers, these differences may not be as great as suggested by earlier research.

Baker's study (1975), which was responsible for the development of the instrumentation utilized in this study, performed a similar analysis of data. He found

that the alternative teachers' ranking of the ten items on which they placed greatest emphasis was dramatically different from the conventional teachers' ten most highly ranked items (pp. 103-104). However, it should be noted that the Baker research suffered from a number of substantial inadequacies which rendered his conclusions less than satisfactory. These inadequacies included a failure to establish any type of instrument or item validity; a participant sample which was drawn from a single midwestern school district that was very small; a lack of definitional criteria in the selection of participating alternative schools; and the fact that he used a combination of significant and non-significant items in his analysis, final conclusions, and recommendations. For these reasons, the Baker conclusion might be viewed as questionable.

In this replication of the Baker study, it was determined that thirteen of the thirty-six ranking items were significantly different. However, of the thirteen items, only five were located further than two rankings apart regarding total subgroup emphasis. (See Table 6.) This similarity suggests that while substantial differences do exist between conventional and alternative teachers as demonstrated by subgroup emans, there is also a significant level of agreement on item importance and occurrence in the classroom.

4. On the basis of student perceptions, both conventional and alternative teachers have difficulty in actualizing a number of instructional functions which involve the sharing of decision making with students.

The analysis of teacher-student correlation on similar items produced little or no agreement between the teachers' and students' perceptions of the regularity of occurence of the following items which focus on involving the students in instructional planning and evaluation:

#4 Assist students in clarifying and deciding on their learning objectives.

#10 Assist students in planning their own learning objectives.

#23 Elicit and use student reactions to modify instructional methods.

(See Tables 1 and 2)

The mean scores of teachers were very similar regarding the amount of emphasis each function received in each setting. All of their responses indicated that each item received from great to very great emphasis in their classrooms. However, an analysis of student data indicates that these functions occur only some of the time at best. The subgroup of alternative teachers and students voiced a slightly higher level of agreement on these items than did the conventional subgroup, but neither group approached what could be termed substantial agreement.

If we can trust the student data, it suggests that there well may be significant differences between the perceptions and actual practices of teachers. It is particularly interesting for the subgroup of alternative teachers and students. One of the general assumptions regarding alternative schools and the relationships existing between teachers and students has been that teachers directly involve students in all levels of instructional planning and evaluation. The findings of this study seem to seriously question that generalization. In addition, it should be recognized that two of the three items (#4, 23) failed to demonstrate concurrent or construct validity. Generally, data drawn from an analysis of validity is not used in relation to other analytical dimensions. However, the very failure of these items to demonstrate validity seems in itself to provide a rather dramatic indication that one of the more widely accepted though unsubstantiated assumptions of alternative school education could well be seriously questioned. For this reason, it was deemed important to utilize these invalid items in reporting this rather surprising inconsistency.

5. While other substantial differences between alternative and conventional schools have been identified, this study has documented the fact that there appears to exist marked differences between the perceived instructional practices found in conventional and alternative schools.

It has long been argued that alternative schools represent a fad whose existence is not based on successful performance but rather on rhetoric. Further, the argument suggests that teachers in alternative schools are not actually different in practice, just in appearance. This study helps to contest that notion by identifying a number of alternative schools that have been highly successful. Earlier research has begun to identify a number of specific components that characterize alternative schools and set them apart from conventional education programs. Additionally, this study has investigated those successful schools and determined that substantial differences do indeed exist between the perceived instructional practices of conventional and alternative school teachers. Thus, this study supports the previously unsubstantiated claim of alternative school educators that alternative teachers do perceive their teaching practices to be different than conventional teachers.

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Appendix A

TEACHER INSTRUMENT

Age _____

Sex _____

Certification Area _____

Degree(s) held _____

Conventional Teaching Experience (Yrs.) _____

Alternative School Teaching Experience (Yrs.) _____

Class in Which Instrument was Completed _____

Time _____

Room _____

INSTRUMENT TO BE ADMINISTERED TO TEACHERS

STEP I

You are being asked to complete this instrument to provide information that may be helpful to teacher training programs and school systems. On the following pages is a list of various teaching functions. In the column marked "Rating", you are asked to rate each function according to the relative emphasis each receives in YOUR teaching. In rating each function, consider carefully how essential it is in your instructional practices. Use the following rating scale.

Very great emphasis------5
Great emphasis----------4
Some emphasis-----------3
Little emphasis---------2
No emphasis-------------1

(PLEASE NOTE that space has been left for you to add and rate functions you think should have been included.)

STEP II

After rating all functions, rank them in the following manner. If you have given, for instance, four teaching functions a rating of 5, decide which you emphasize most and rank it "1" in the column labeled "Ranking". Rank the next in emphasis "2", and so forth till all functions with a rating of 5 have been ranked, 1 through 4. Now consider all the functions you gave a rating of 4. To continue our example, the function receiving greatest emphasis will be ranked "5", the next, "6", and so on, till all functions with a rating of 4 have been ranked. Continue through the 3's, 2's, and 1's, until all teaching functions have been ranked. Examine the sample below to see how such a ranking may look.

Sample

| TEACHING FUNCTION | Step I Rating | Step II Ranking |
|---|---|---|
| Function A | 3 | 15 |
| Function B | 5 | 1 |
| Function C | 4 | 7 |
| Function D | 5 | 2 |
| Function E | 2 | 21 |
| Function F | 1 | 29 |

REMEMBER TWO POINTS: THIS INSTRUMENT IS ANONYMOUS. THERE ARE NO RIGHT OR WRONG RESPONSES!

| TEACHING FUNCTION | STEP I RATING | STEP II RANKING |
|---|---|---|
| 1. Select learning objectives appropriate for students. | | |
| 2. Locate and select audio-visual materials. | | |
| 3. Locate and select material to supplement textbooks. | | |
| 4. Assist students in clarifying and deciding on their learning objectives. | | |
| 5. Adapt material from several sources in lieu of a textbook. | | |
| 6. Plan learning activities for the class. | | |
| 7. Invent and prepare learning materials. | | |
| 8. Plan varied learning activities for sub-groups within class. | | |
| 9. Maintain an orderly classroom. | | |
| 10. Assist students in planning their own learning activities. | | |
| 11. Assist individual students in dealing with personal concerns. | | |
| 12. Lead discussions. | | |
| 13. Provide short-term out-of-school experiences (arrange and supervise one-day field trips, picnics, etc.). | | |
| 14. Provide extended out-of-school experiences (arrange and supervise overnight field trips, camping trips, etc.). | | |
| 15. Provide on-going out-of-school experiences (arrange and supervise work-study experiences, supervise students). | | |
| 16. Present subject matter orally and visually. | | |
| 17. Use community resources in class (invite speakers; obtain material from social service agencies, government, industry, etc.) | | |

| TEACHING FUNCTION | STEP I RATING | STEP II RANKING |
|---|---|---|
| 18. Ask questions that provide for student recall and integration of prior knowledge. | | |
| 19. Use simulations. | | |
| 20. Act as a resource for individual students or small groups. | | |
| 21. Ask questions that elicit student ideas. | | |
| 22. Provide remedial instruction. | | |
| 23. Elicit and use student reactions to modify instructional methods. | | |
| 24. Use programmed instructional material. | | |
| 25. Administer pre-tests of student knowledge. | | |
| 26. Administer pre-tests of student attitudes. | | |
| 27. Administer post-tests of student knowledge. | | |
| 28. Administer post-tests of student attitudes. | | |
| 29. Facilitate group processes within class. | | |
| 30. Use written evaluations of student achievement. | | |
| 31. Evaluate student work and assign numerical or letter grades. | | |
| 32. Use student learning contracts. | | |
| 33. Grade on a pass-fail basis. | | |
| 34. Select or prepare material for individualized learning. | | |
| 35. Ask questions that elicit students' feelings. | | |
| 36. Maintain resource centers or learning centers in the classroom. | | |

INSTRUMENT TO BE ADMINISTERED TO STUDENT

You are being asked to complete this questionnaire to provide information that may be useful to educators. On the following pages is a list of statements. After reading a statement carefully, you will decide to what degree it is true of this class in YOUR school. You will then rate the statement on a scale of one to ten. A rating of one means the statement is NEVER true of this class in your school, while a rating of ten means the statement is ALWAYS true of this class in your school. Look at the following example.

EXAMPLE 1.

| | NEVER | | | | | | | | | ALWAYS |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. We read aloud in class. | 1 | (2) | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

You may decide that since you read aloud in your classes rarely, you should give the statement a rating of 2. Examine the sample below to see how a completed questionnaire may look.

EXAMPLE 2.

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 2. The teacher takes attendance. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | (10) |
| 3. Students use workbooks. | 1 | 2 | 3 | 4 | 5 | 6 | (7) | 8 | 9 | 10 |
| 4. Teachers read aloud in class. | 1 | 2 | (3) | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 5. Students work in groups. | 1 | 2 | 3 | 4 | (5) | 6 | 7 | 8 | 9 | 10 |

etc.

REMEMBER -- your name will NOT appear on this questionnaire. Answer as accurately as you can. Rate every statement. There are no "right" or "wrong" answers.

IN THIS CLASS IN MY SCHOOL:

| | NEVER | | | | | | | | | ALWAYS |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. the teacher decides what students should learn. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 2. the teacher uses audio-visual materials. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 3. we use textbooks. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 4. the teacher helps students decide what they want to learn. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 5. the teacher decides what we will do in class. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 6. small groups work on different things during class. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 7. the teacher keeps the class quiet and orderly. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 8. the teacher helps students decide what to do in class. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 9. the teacher helps students individually with their personal problems. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 10. the teacher leads discussions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11. we take one-day field trips. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 12. we take over-night field trips. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 13. we spend part of the school day working or studying in the community. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 14. the teacher lectures. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 15. we have guest speakers in class. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 16. we use learning games or role playing in class. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 17. the teacher asks questions about information we have learned. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 18. the teacher asks for students' ideas. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 19. the teacher asks students to express their feelings. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 20. | students work individually at their own pace. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 21. | the teacher asks students to evaluate his or her teaching. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 22. | the teacher gives students a pre-test before beginning a topic or unit. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 23. | the teacher gives students a test after a topic or unit is completed. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 24. | the teacher gives numerical or letter grades on report cards. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 25. | written evaluations of students' work are sent to parents. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 26. | students sign learning contracts. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 27. | work is graded on a pass-fail basis. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |